FIG. 1

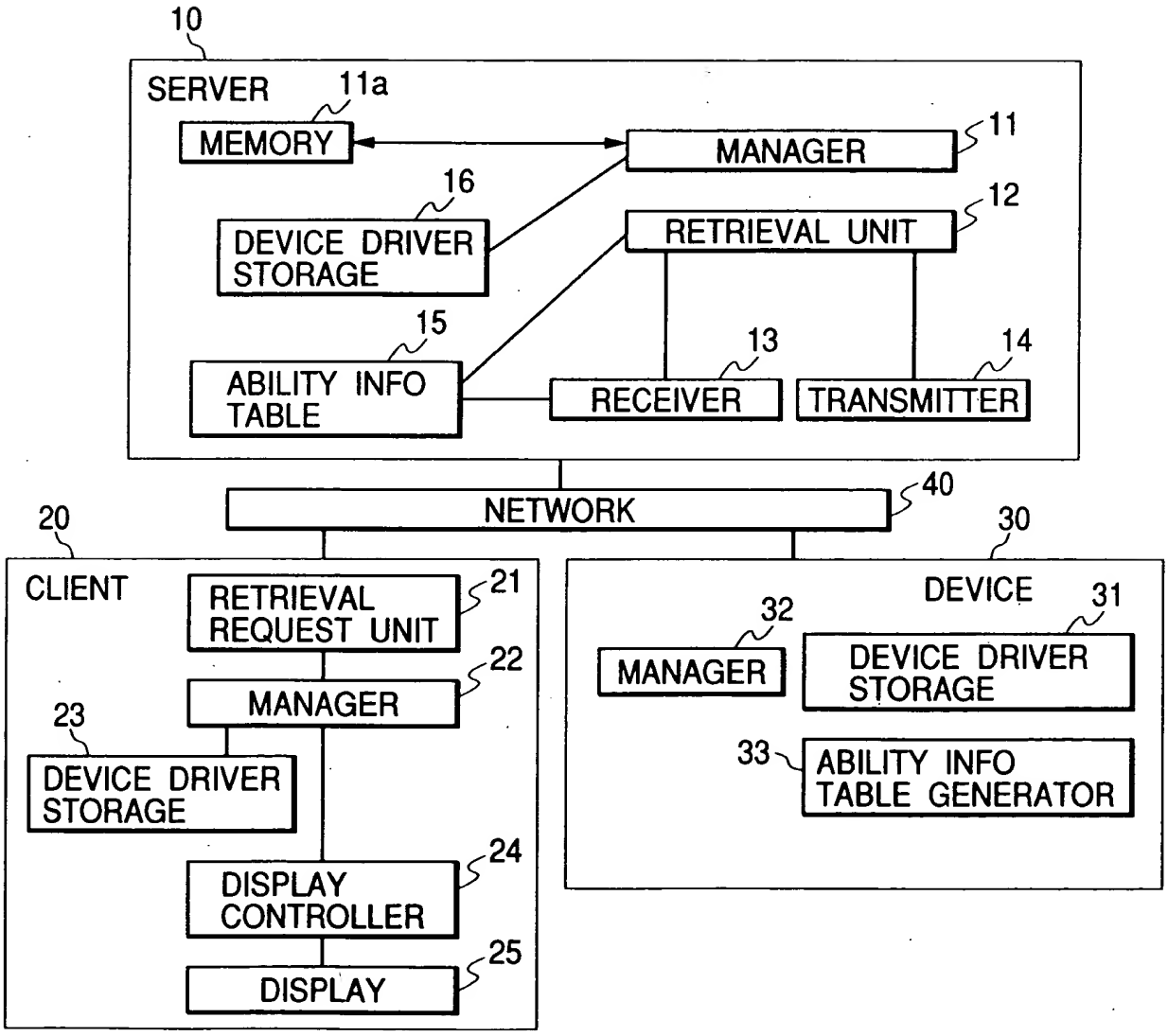
10
SERVER
11a
MEMORY
MANAGER
11
16
DEVICE DRIVER STORAGE
RETRIEVAL UNIT
12
15
13
14
ABILITY INFO TABLE
RECEIVER
TRANSMITTER
NETWORK
40
20
30
CLIENT
RETRIEVAL REQUEST UNIT
21
DEVICE
31
32
MANAGER
22
DEVICE DRIVER STORAGE
23
33
ABILITY INFO TABLE GENERATOR
DEVICE DRIVER STORAGE
24
DISPLAY CONTROLLER
25
DISPLAY

FIG. 2

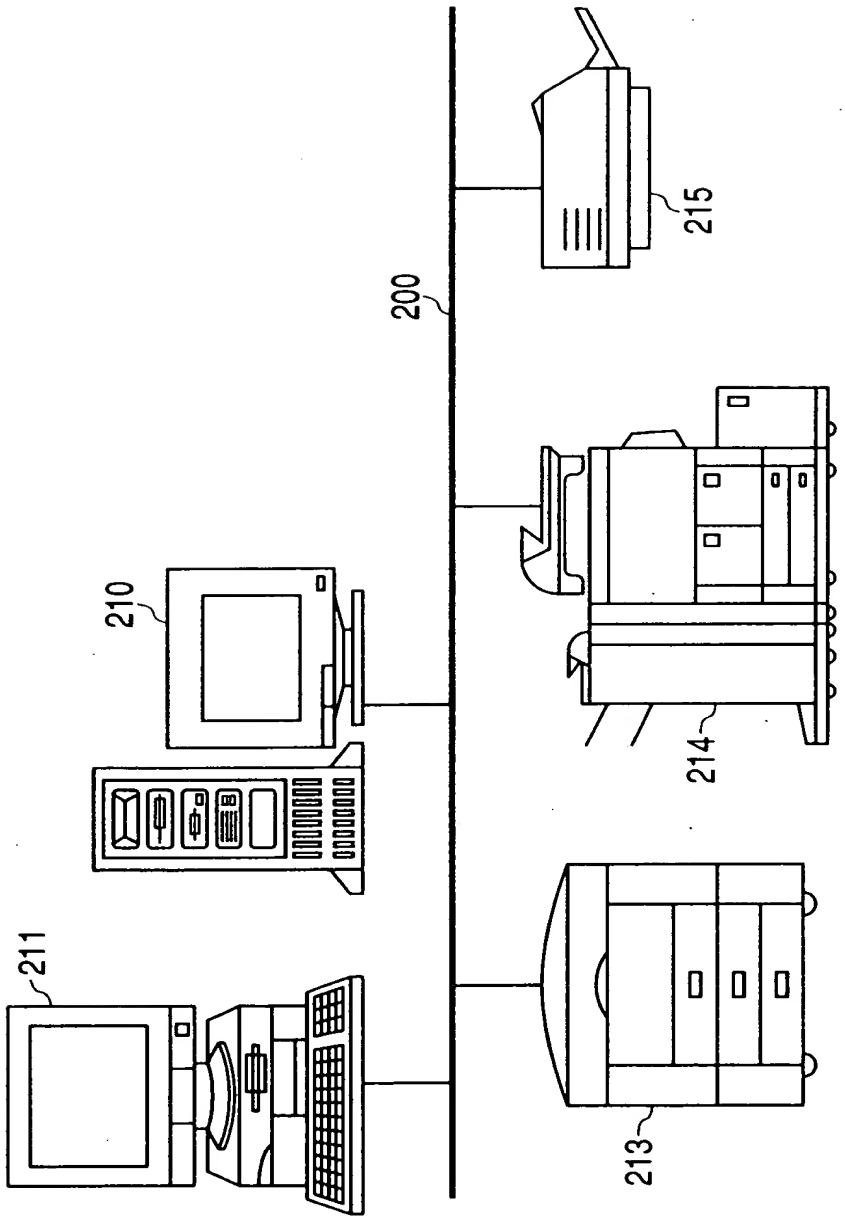

FIG. 3

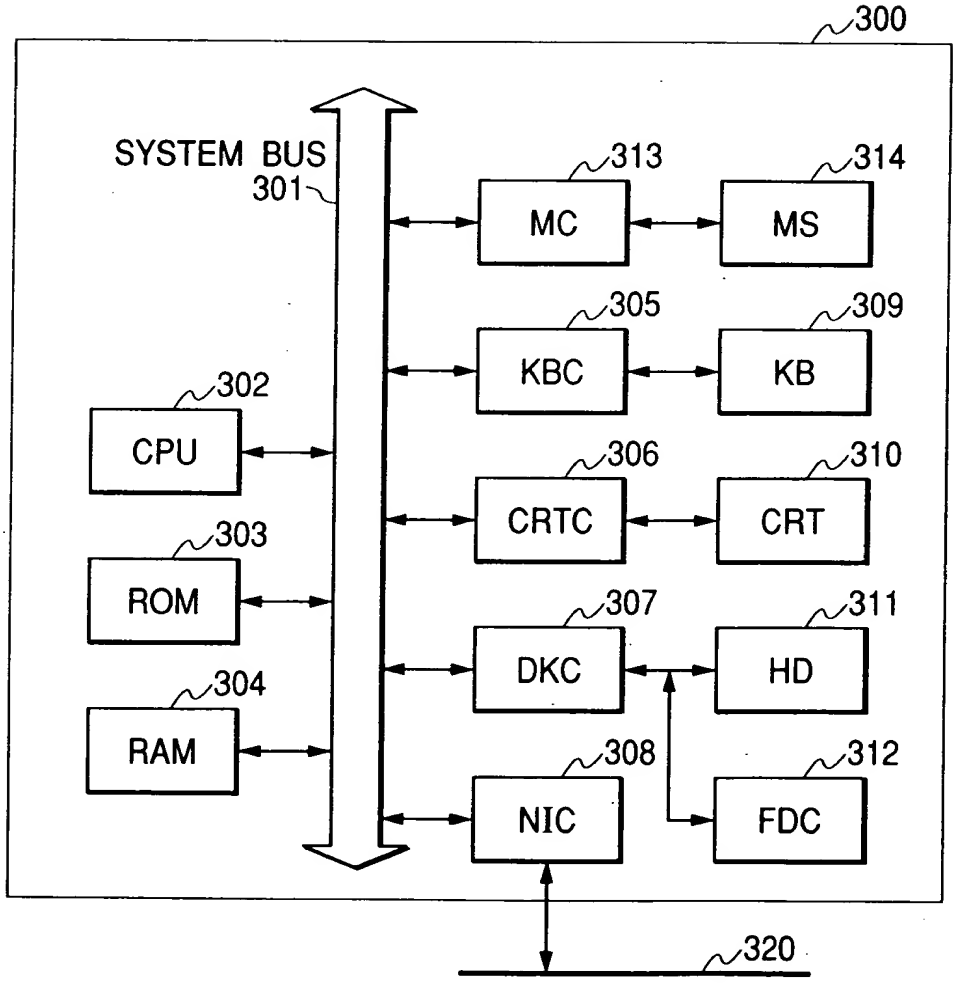
300
SYSTEM BUS
301
313
MC
314
MS
305
KBC
309
KB
302
CPU
306
CRTC
310
CRT
303
ROM
307
DKC
311
HD
304
RAM
308
NIC
312
FDC
320

FIG. 4

400

401	NM	LBP1110	MFP6550	LBP3310
402	ADD	111.22.33.44	111.22.33.45	111.22.33.46
403	DV	PRINTER	MFP	PRINTER

FIG. 5

	RETRIEVAL CONDITION	
502	DUPLEX PRINT	ON/OFF
503	N-UP PRINT	2/4/6
504	JOB COPY	1—999
505	PAGE COPY	1—999
506	OHP INSERT	ON/OFF
507	RESOLUTION	300/600
508	PAGE NO.	1—999
509	PAPER SIZE	A5—A3

FIG. 6

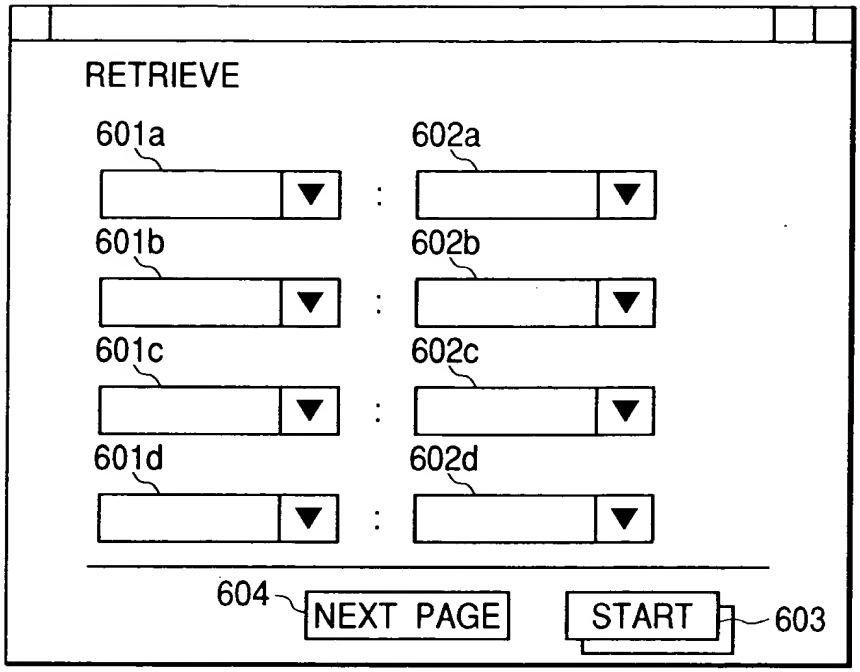
RETRIEVE
601a
602a
601b
602b
601c
602c
601d
602d
604
NEXT PAGE
START
603

FIG. 7

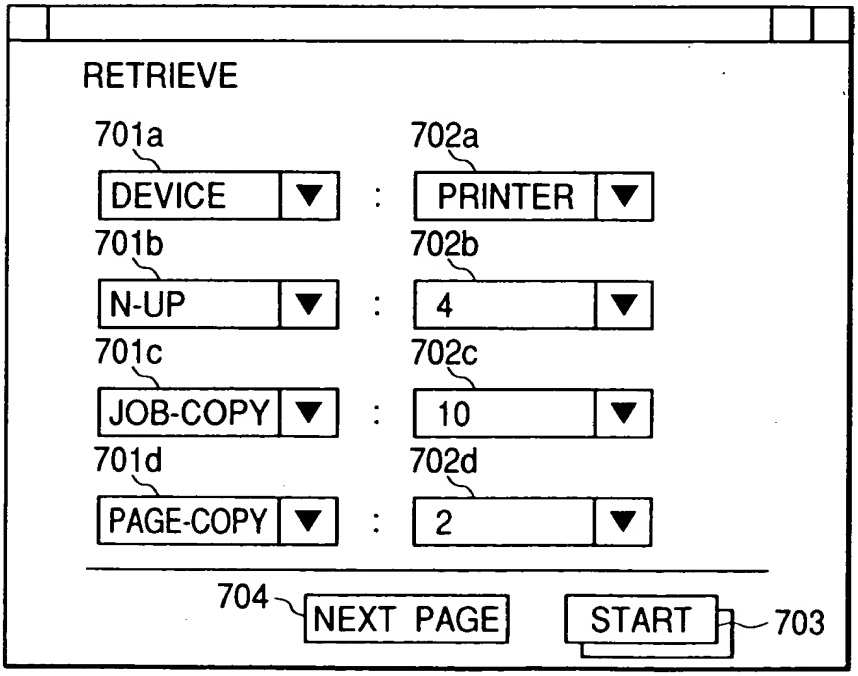
RETRIEVE
701a
DEVICE
702a
PRINTER
701b
N-UP
702b
4
701c
JOB-COPY
702c
10
701d
PAGE-COPY
702d
2
704
NEXT PAGE
START
703

FIG. 8

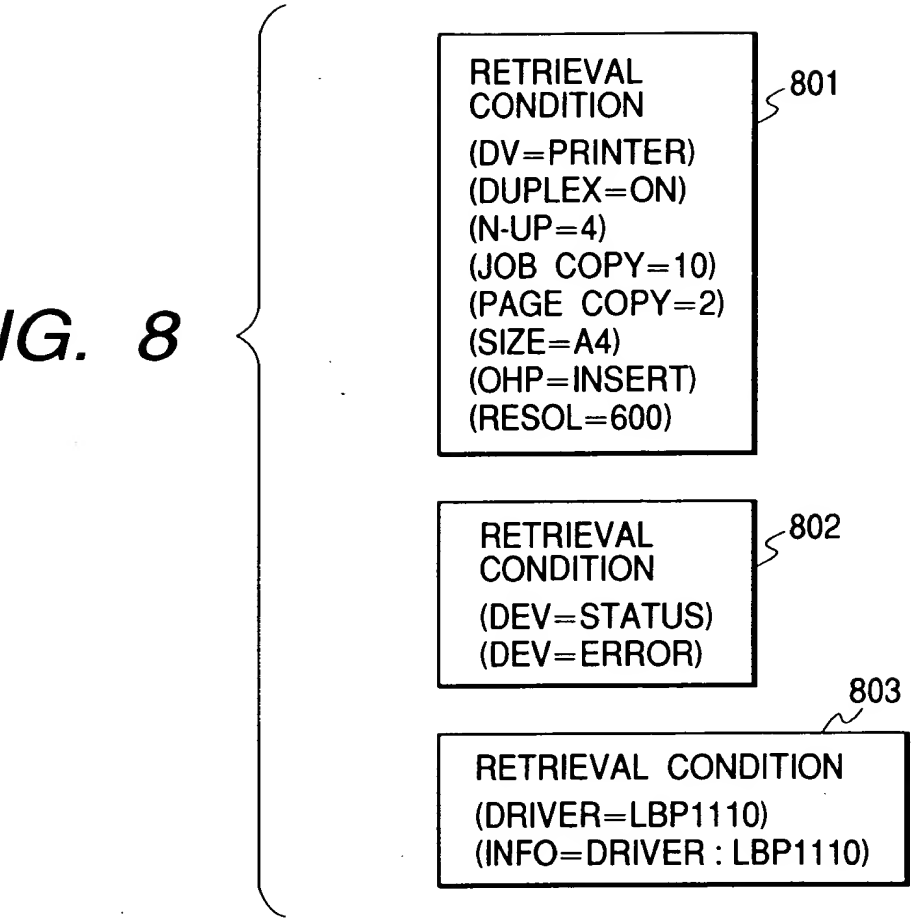

FIG. 9

	ITEM	ABILITY INFO
1101	DUPLEX	AVAILABLE
1102	N-UP	UNAVAILABLE
1103	JOB COPY	AVAILABLE
1104	PAGE COPY	999
1105	SIZE	A4
1106	OHP	UNAVAILABLE
1107	RESOL	300/600

FIG. 10

	ITEM	ABILITY INFO
1101	DUPLEX	UNAVAILABLE
1102	N-UP	AVAILABLE
1103	JOB COPY	AVAILABLE
1104	PAGE COPY	AVAILABLE
1105	SIZE	A4
1106	OHP	AVAILABLE
1107	RESOL	300/600

FIG. 11

	ITEM	ABILITY INFO
1101	DUPLEX	AVAILABLE
1102	N-UP	DRIVER
1103	JOB COPY	10
1104	PAGE COPY	999
1105	SIZE	A4
1106	OHP	DRIVER
1107	RESOL	300/600
1108	ERROR	NO

FIG. 12

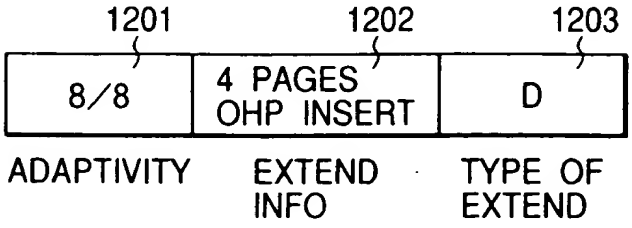

FIG. 13

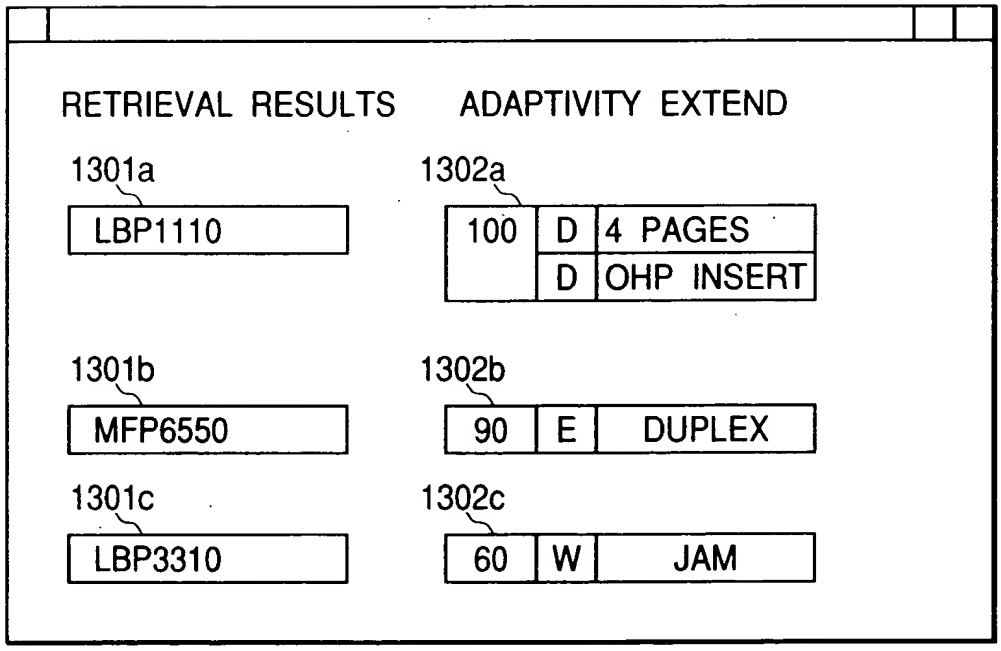
RETRIEVAL RESULTS
ADAPTIVITY EXTEND
1301a
LBP1110
1302a
100
D
4 PAGES
D
OHP INSERT
1301b
MFP6550
1302b
90
E
DUPLEX
1301c
LBP3310
1302c
60
W
JAM

FIG. 14

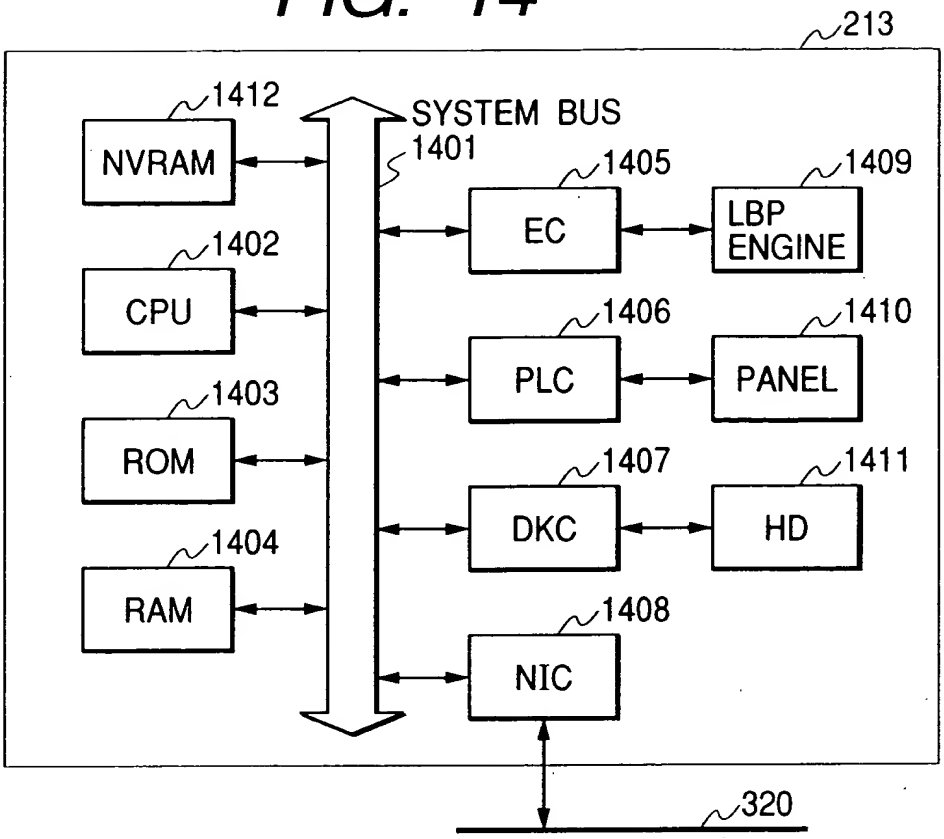
213
1412
NVRAM
SYSTEM BUS
1401
1405
EC
1409
LBP ENGINE
1402
CPU
1406
PLC
1410
PANEL
1403
ROM
1407
DKC
1411
HD
1404
RAM
1408
NIC
320

FIG. 15

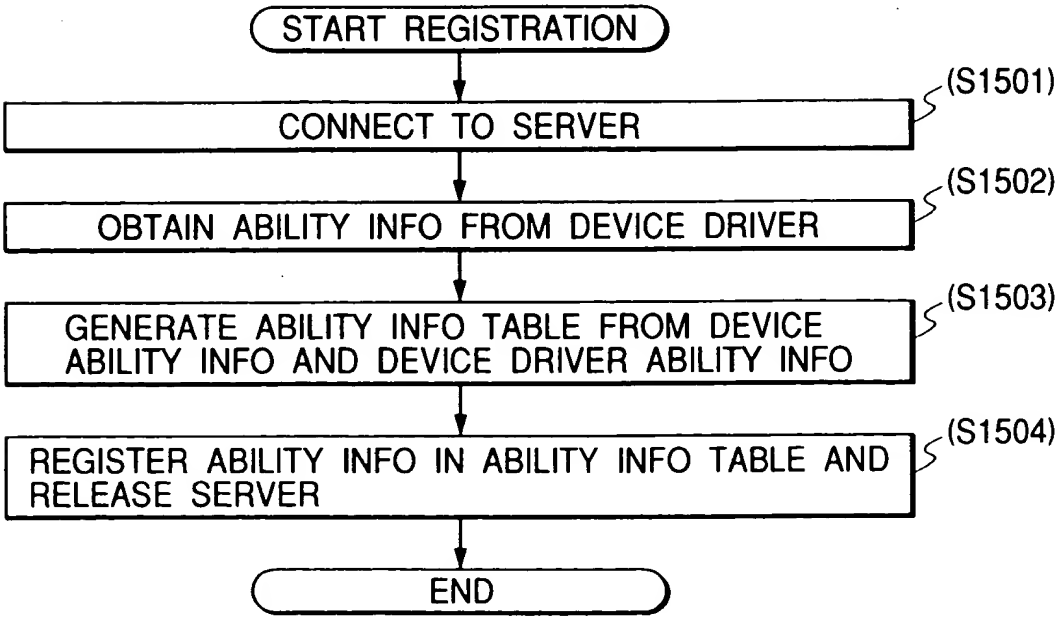
START REGISTRATION
CONNECT TO SERVER
(S1501)
OBTAIN ABILITY INFO FROM DEVICE DRIVER
(S1502)
GENERATE ABILITY INFO TABLE FROM DEVICE ABILITY INFO AND DEVICE DRIVER ABILITY INFO
(S1503)
REGISTER ABILITY INFO IN ABILITY INFO TABLE AND RELEASE SERVER
(S1504)
END

FIG. 16

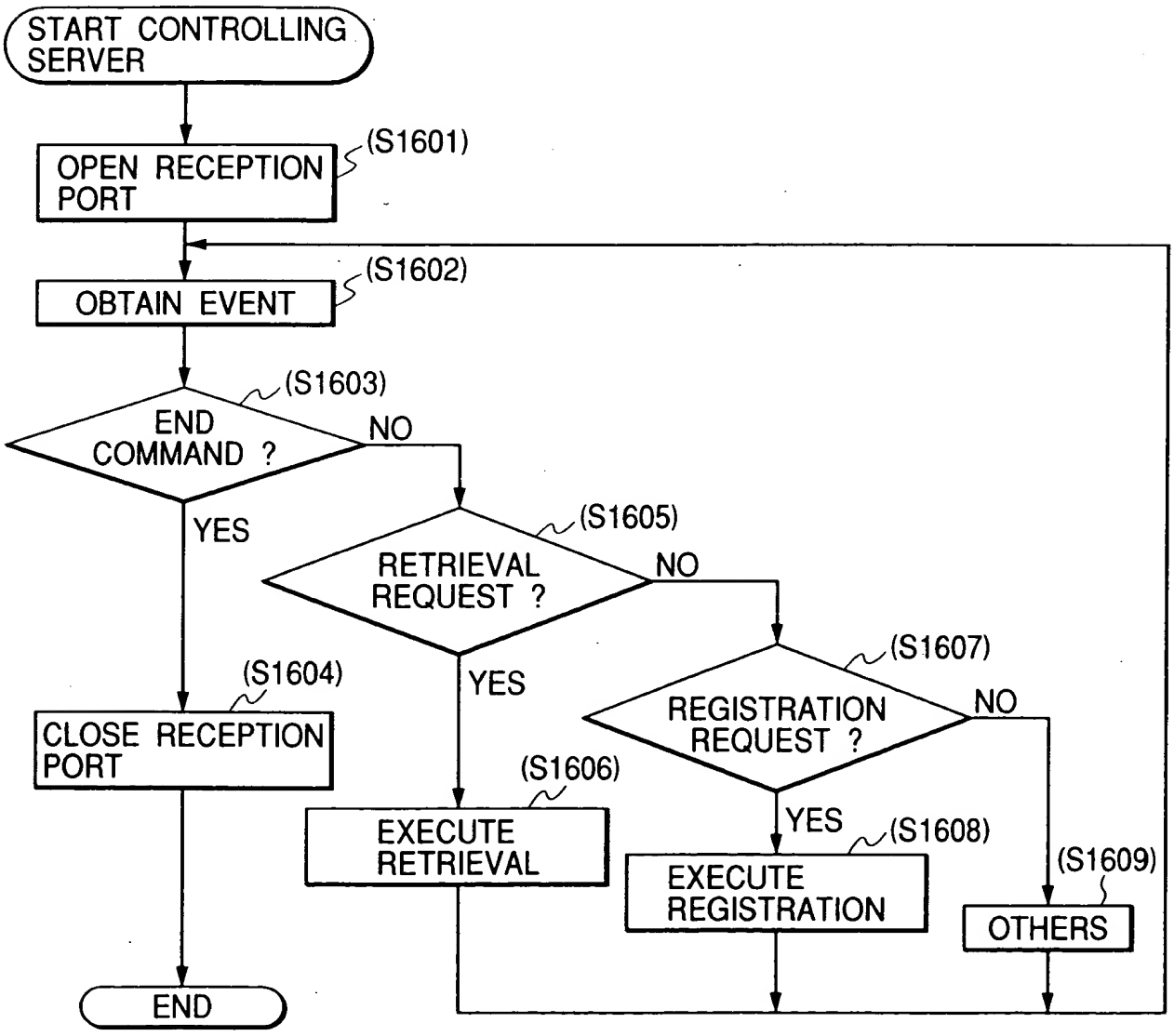
START CONTROLLING SERVER
OPEN RECEPTION PORT
(S1601)
OBTAIN EVENT
(S1602)
END COMMAND ?
(S1603)
NO
YES
RETRIEVAL REQUEST ?
(S1605)
NO
YES
REGISTRATION REQUEST ?
(S1607)
NO
YES
CLOSE RECEPTION PORT
(S1604)
EXECUTE RETRIEVAL
(S1606)
EXECUTE REGISTRATION
(S1608)
OTHERS
(S1609)
END

FIG. 17

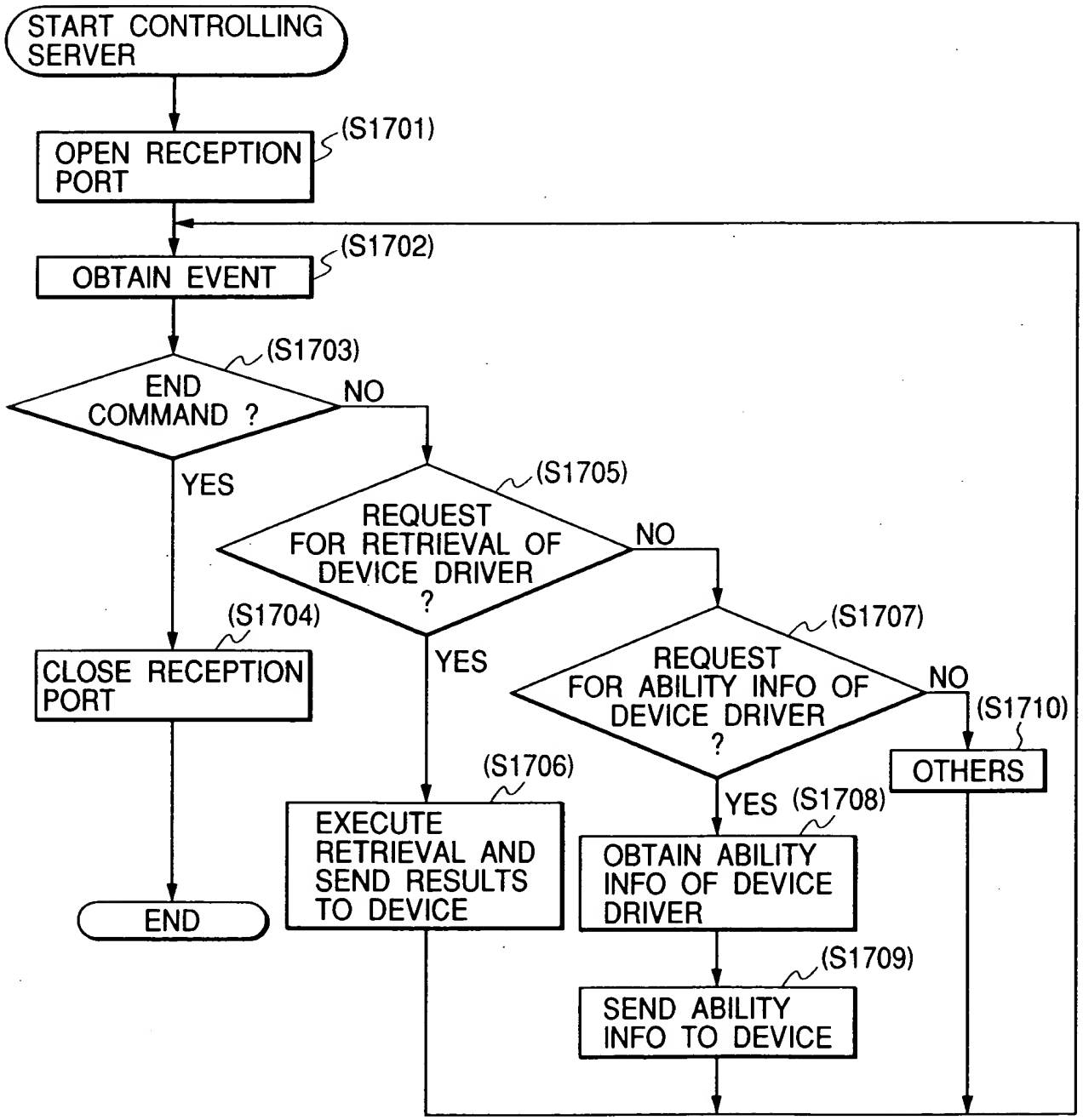
START CONTROLLING SERVER
OPEN RECEPTION PORT
(S1701)
OBTAIN EVENT
(S1702)
END COMMAND ?
(S1703)
NO
YES
REQUEST FOR RETRIEVAL OF DEVICE DRIVER ?
(S1705)
NO
YES
CLOSE RECEPTION PORT
(S1704)
REQUEST FOR ABILITY INFO OF DEVICE DRIVER ?
(S1707)
NO
(S1710)
OTHERS
YES
(S1708)
EXECUTE RETRIEVAL AND SEND RESULTS TO DEVICE
(S1706)
OBTAIN ABILITY INFO OF DEVICE DRIVER
SEND ABILITY INFO TO DEVICE
(S1709)
END

FIG. 18

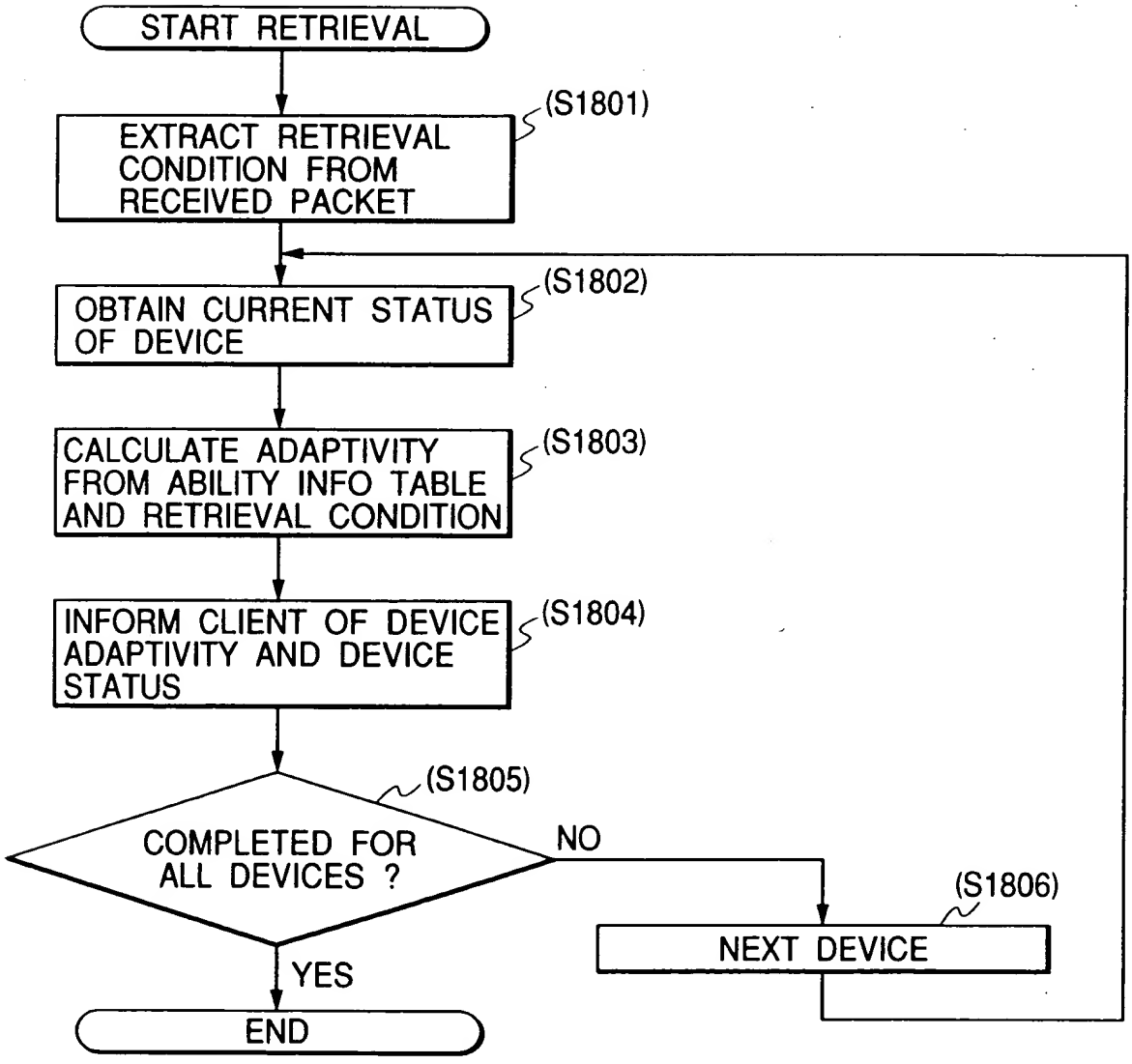
START RETRIEVAL
EXTRACT RETRIEVAL CONDITION FROM RECEIVED PACKET
(S1801)
OBTAIN CURRENT STATUS OF DEVICE
(S1802)
CALCULATE ADAPTIVITY FROM ABILITY INFO TABLE AND RETRIEVAL CONDITION
(S1803)
INFORM CLIENT OF DEVICE ADAPTIVITY AND DEVICE STATUS
(S1804)
COMPLETED FOR ALL DEVICES ?
(S1805)
NO
YES
NEXT DEVICE
(S1806)
END

FIG. 19

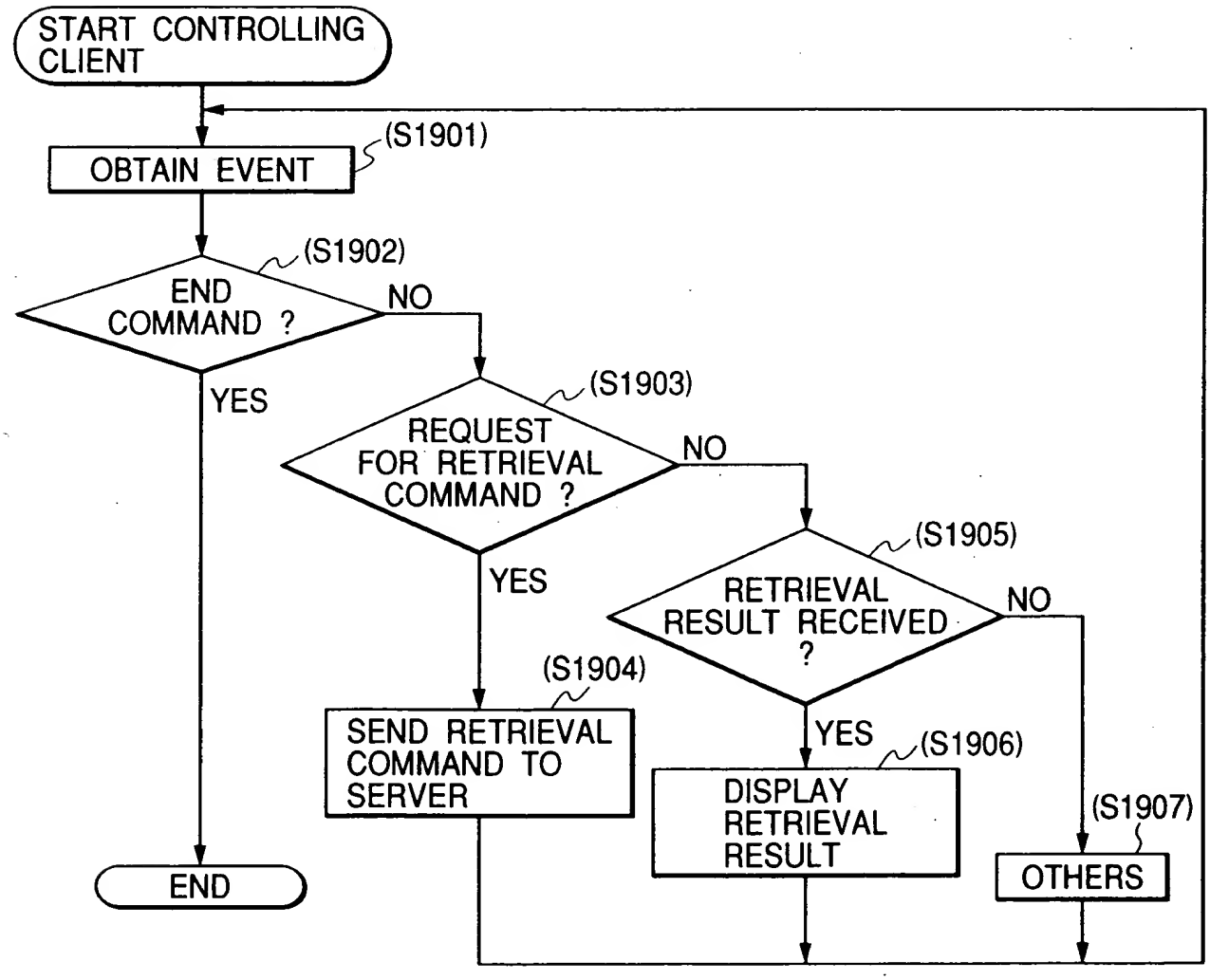
START CONTROLLING CLIENT
OBTAIN EVENT
(S1901)
END COMMAND ?
(S1902)
NO
YES
REQUEST FOR RETRIEVAL COMMAND ?
(S1903)
NO
YES
RETRIEVAL RESULT RECEIVED ?
(S1905)
NO
YES
SEND RETRIEVAL COMMAND TO SERVER
(S1904)
DISPLAY RETRIEVAL RESULT
(S1906)
OTHERS
(S1907)
END

FIG. 20

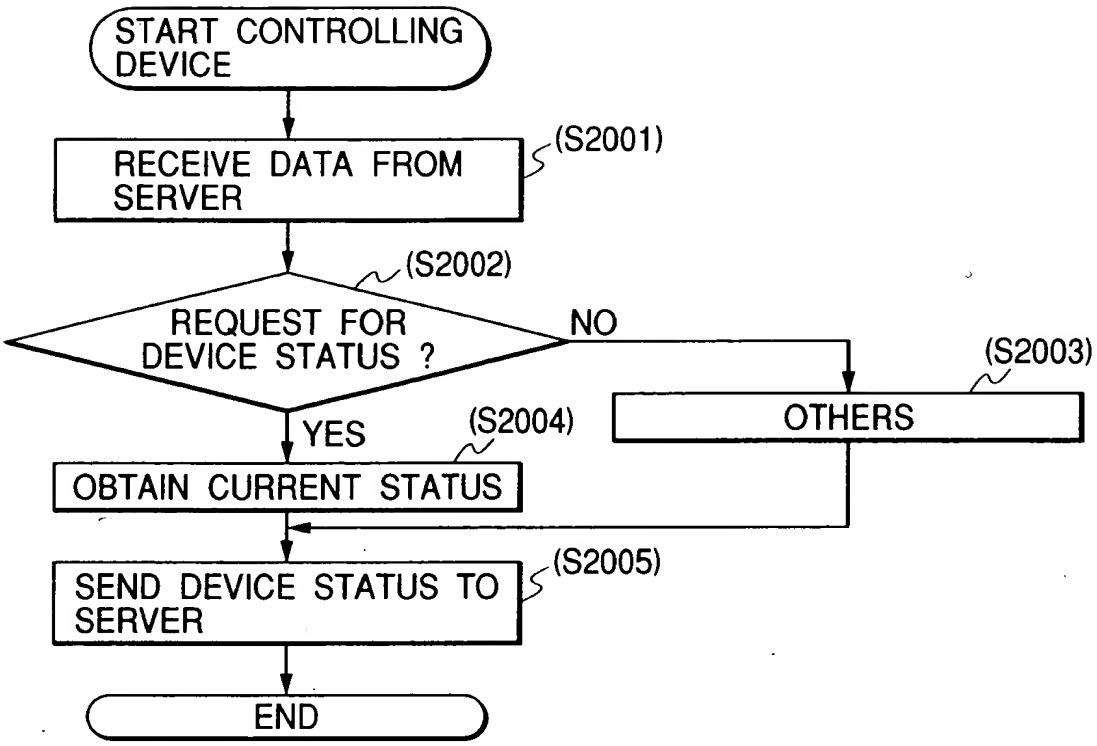
START CONTROLLING DEVICE
RECEIVE DATA FROM SERVER
(S2001)
(S2002)
REQUEST FOR DEVICE STATUS ?
NO
(S2003)
OTHERS
YES
(S2004)
OBTAIN CURRENT STATUS
SEND DEVICE STATUS TO SERVER
(S2005)
END

FIG. 21

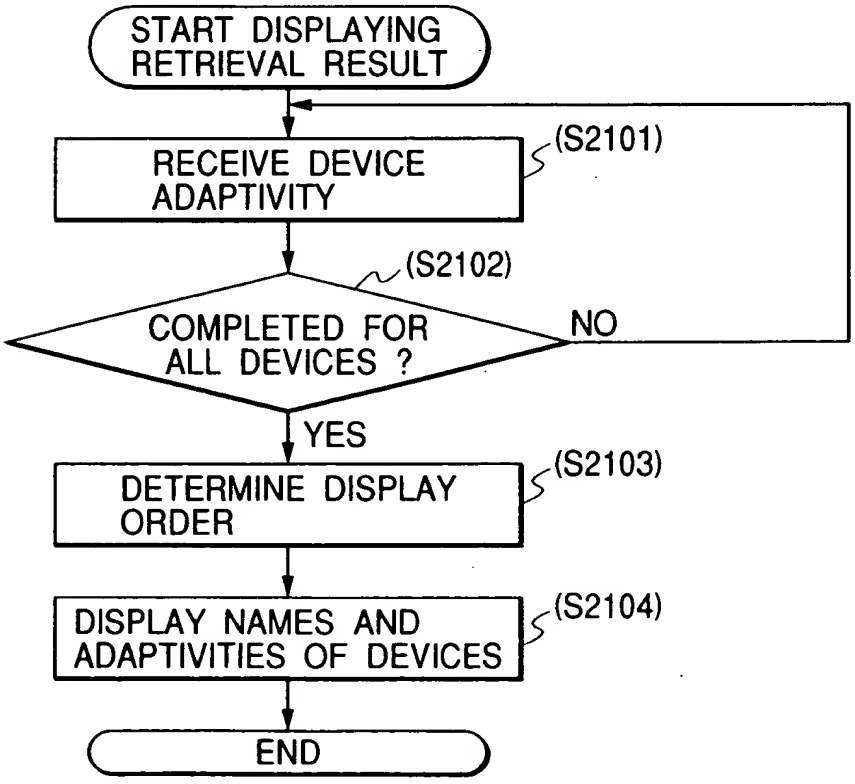
START DISPLAYING RETRIEVAL RESULT
RECEIVE DEVICE ADAPTIVITY
(S2101)
(S2102)
COMPLETED FOR ALL DEVICES ?
NO
YES
DETERMINE DISPLAY ORDER
(S2103)
DISPLAY NAMES AND ADAPTIVITIES OF DEVICES
(S2104)
END

FIG. 22

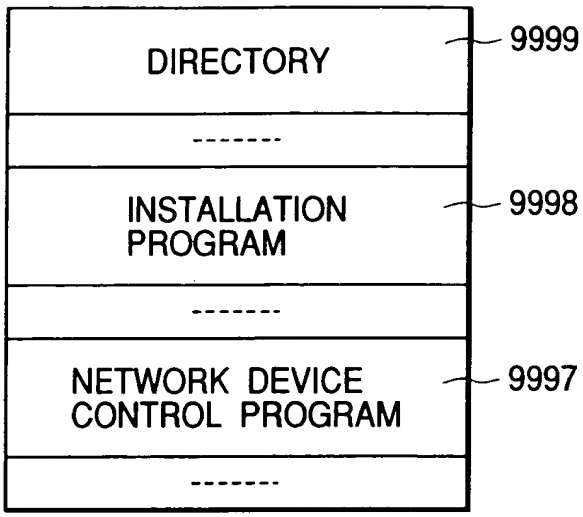
DIRECTORY
9999
INSTALLATION PROGRAM
9998
NETWORK DEVICE CONTROL PROGRAM
9997

FIG. 23

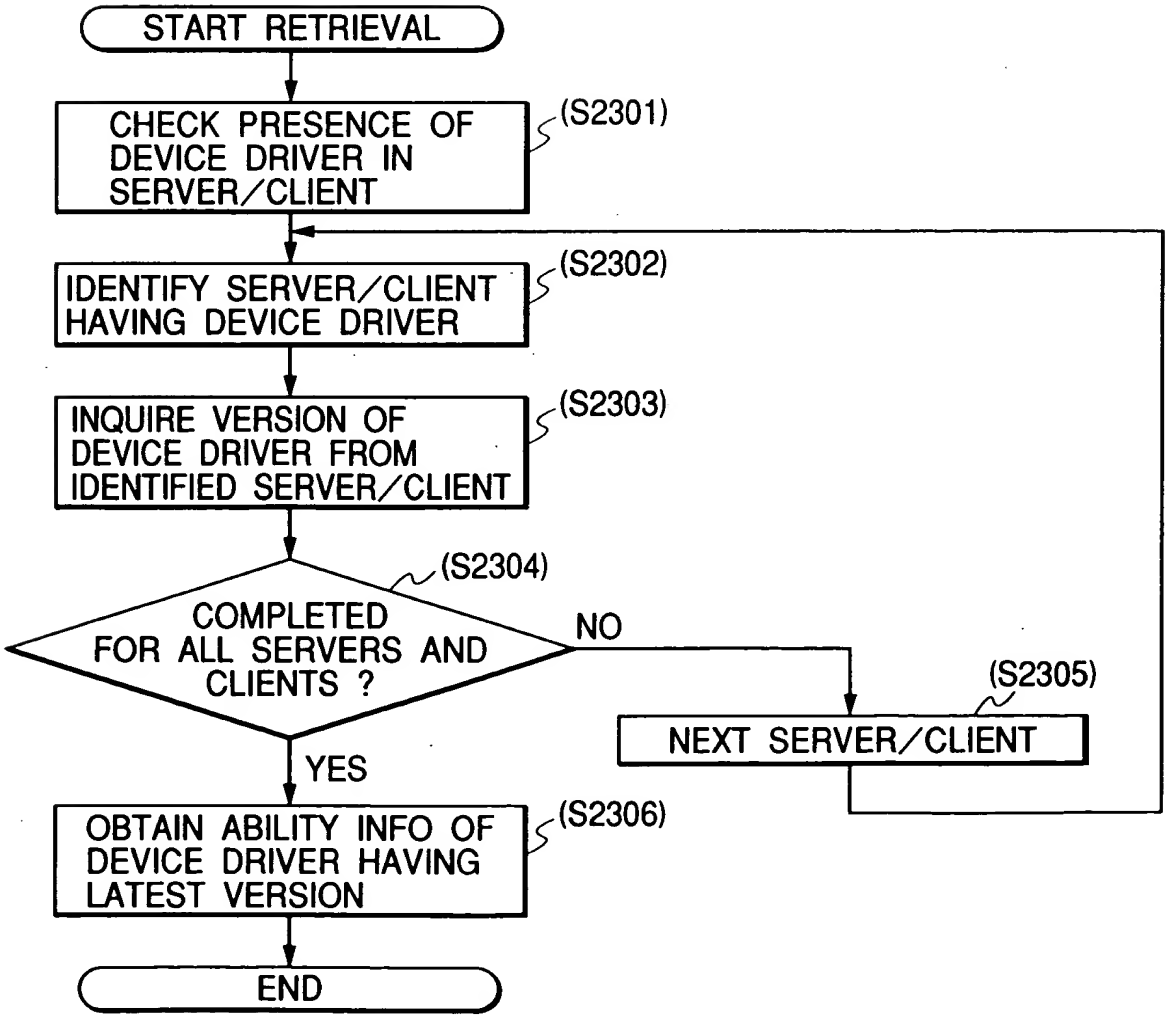
START RETRIEVAL
CHECK PRESENCE OF DEVICE DRIVER IN SERVER/CLIENT
(S2301)
IDENTIFY SERVER/CLIENT HAVING DEVICE DRIVER
(S2302)
INQUIRE VERSION OF DEVICE DRIVER FROM IDENTIFIED SERVER/CLIENT
(S2303)
(S2304)
COMPLETED FOR ALL SERVERS AND CLIENTS ?
NO
(S2305)
NEXT SERVER/CLIENT
YES
OBTAIN ABILITY INFO OF DEVICE DRIVER HAVING LATEST VERSION
(S2306)
END

FIG. 24

MEMORY MAP OF MEMORY MEDIUM
(FD/CD-ROM ETC.)

DIRECTORY
1ST DATA PROCESSING PROGRAM PROGRAM CODES FOR FLOWCHART OF FIGS. 15, 16 & 19
2ND DATA PROCESSING PROGRAM PROGRAM CODES FOR FLOWCHART OF FIGS. 17, 20 & 21
3RD DATA PROCESSING PROGRAM PROGRAM CODES FOR FLOWCHART OF FIG. 18
4TH DATA PROCESSING PROGRAM PROGRAM CODES FOR FLOWCHART OF FIG. 23